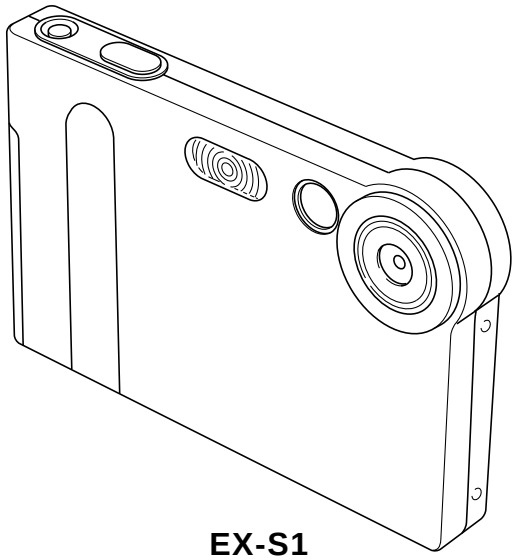
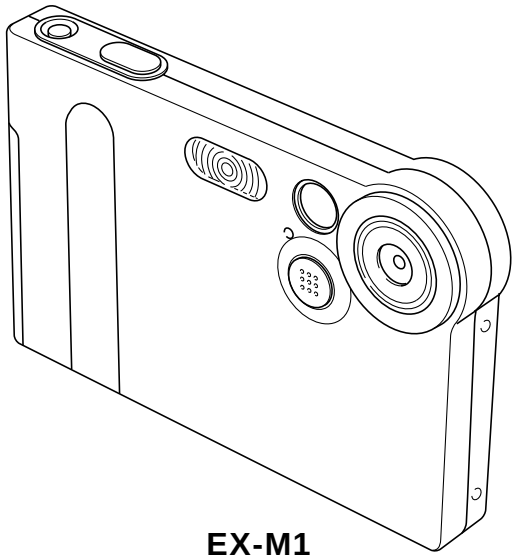
SERVICE MANUAL & PARTS LIST (without price)

EX-S1/M1

JUN. 2002



EX-S1



EX-M1

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CASIO®

Ver. 2 Oct/ 2002
Ver.1 Jul/ 2002

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SPECIFICATIONS

Image Files Format	Snapshots: JPEG (Exif Version 2.2); DCF (Design Rule for Camera File System)1.0 standard; DPOF compliant Movies: AVI (Motion JPEG) Audio: WAV (EX-M1 only)
Recording Media	12MB built-in flash memory SD Memory Card MultiMedia Card
Image Size	Snapshots: 1600 x 1200pixels 1280 x 960pixels 640 x 480pixels Movies: 320 x 240pixels

Approximate Memory Capacity and File sizes

• Snapshots

File Size (pixels)	Quality	Approximate Image File Size	Built-in flash memory 12MB	SD Memory Card* 64MB
1600 x 1200	Fine	1050KB	10 shots	53 shots
(UXGA)	Normal	710KB	15 shots	79 shots
	Economy	370KB	30 shots	154 shots
1280 x 960	Fine	680KB	16 shots	82 shots
(SXGA)	Normal	460KB	24 shots	126 shots
	Economy	250KB	42 shots	220 shots
640 x 480	Fine	190KB	57 shots	294 shots
(VGA)	Normal	140KB	75 shots	386 shots
	Economy	90KB	120 shots	618 shots

• Movies (320 x 240 pixels)

Data Size	150KB/second max.
Recording Time	One Movie: 30 seconds maximum Total Movie Time: 80 seconds maximum (built-in memory) 410 seconds maximum (SD 64MB memory card)*

* Based on Matsushita Electric Industrial Co., Ltd. products. Capacity depends on card manufacturer.

* To determine the number of images that can be stored on a memory card of a different capacity, multiply the capacities in the table by the appropriate value.

Delete	Single-file, all files (with protection)
Effective Pixels	1.24 million
Imaging Element	1.27-inch square pixel color CCD (Total pixels: 1.34 million)
Lens/Focal Distance	F2.5/f = 5.6mm (Equivalent to 37mm on a 35mm film camera.)
Zoom	4X digital zoom
Focusing	Fixed focal point
Approximate Focus Range (from lens surface)	1m to ∞

Exposure Control	Metering: Multi-pattern by imaging element Exposure: Program AE Exposure Compensation: –2EV to +2EV (in 1/3EV steps)
Shutter	CCD shutter, mechanical shutter 1/4 to 1/8000 second
Aperture	F2.5 fixed
White Balance	Automatic/fixed (4 modes) /Manual
Self-timer	10 seconds
Built-in Flash	Flash Modes: Auto, Off, On, Red-eye reduction Approximate Flash Range: 1 meter to 2 meters
Recording Functions	Snapshot (with audio for EX-M1 only); self-timer; Night Scene; Movie (with audio for EX-M1 only); voice recording (EX-M1 only) * Audio is monaural
Audio Recording Time (EX-M1 only)	Audio Snapshot: Approximately 30 seconds maximum per image Voice Recording: Approximately 50 minutes with built-in memory After Recording: Approximately 30 seconds maximum per image
Monitor Screen	1.6-inch TFT color LCD 84,960 pixels (354 x 240)
Viewfinder	Monitor screen and optical viewfinder
Timekeeping Functions	Built-in quartz digital clock Date and Time: Recorded with image data Auto Calendar: To 2049
Input/Output Terminals	Cradle connector (EX-M1 connector is also used for connection of remote controller.)
Speaker (EX-M1 only)	20mm round, monaural
Audio Player Function (EX-M1 Only)	Data Compression/Decompression: MP3 (MPEG-1 Audio Layer-3) Sampling Frequencies: 32kHz, 44.1kHz, 48kHz Bit Rates: 32 to 210 kbps, VBR-compatible Play Mode: Normal, all track repeat, 1-track repeat Practical Maximum Headphone Output: 9mW + 9mW (16 Ω)
Power Supply	Power Requirements: Rechargeable lithium ion battery (NP-20) x 1

Approximate Battery Life:

Continuous Recording	80 minutes (480 shots)
Continuous Playback (Continuous Snapshot Recording)	110 minutes
Continuous Voice Recording*	80 minutes
Continuous Audio Playback*	330 minutes

The values noted above are approximate values until power fails, based on continuous recording with flash off, at normal temperature (25°C). The above does not guarantee that you will be able to achieve this level of operation. Low temperatures shorten battery life. Voice recording times are based on continuous recording, while audio playback times are based on continuous output (through headphones).

* Voice recording and audio playback times apply to the EX-M1 only.

Power Consumption	DC 3.7V Approximately 3.0W

Dimensions	EX-S1:	88(W) x 55(H) x 11.3(D) mm (3.5″(W) x 2.2″(H) x 0.4″(D)) (excluding projections)
	EX-M1:	88(W) x 55(H) x 12.4(D) mm (3.5″(W) x 2.2″(H) x 0.5″(D)) (excluding projections)
Weight	EX-S1:	Approximately 85 g (3.0 oz) (excluding battery and accessories)
	EX-M1:	Approximately 87 g (3.1 oz) (excluding battery and accessories)
Bundled Accessories	Rechargeable lithium ion battery (NP-20); USB Cradle; Special AC Adaptor; AC power cord; Strap; Special USB cable; Dummy Card; Connector Cover; LCD Remote Controller (bundled with EX-M1 only); Stereo Headphones (bundled with EX-M1 only); CD-ROM; Basic Reference; Rechargeable Lithium Ion Battery User's Guide	
USB Cradle	Input/Output Terminals	Camera connector: USB port; AC adaptor terminal (DC IN 5.3V)
	Power Consumption:	DC 5.3V Approximately 3.4W
	Dimensions:	95(W) x 55.5(H) x 39.5(D) mm (3.7″(W) x 2.2″(H) x 1.6″(D)) (excluding projections)
	Weight:	Approximately 56 g (2.0 oz)
LCD Remote Controller	Input/Output Terminals:	Camera connector; headphones jack (ø3.5mm stereo mini jack)
(Bundled with EX-M1 Only)	Cord Length:	Approximately 0.8m (31.5″)
	Dimensions:	74.5(W) x 16(H) x 11(D) mm
		(2.9″(W) x 0.6″(H) x 0.4″(D))
		(excluding projections, excluding cradle)
	Weight:	Approximately 28 g (1.0 oz)

Power Supply

- Use only the special NP-20 rechargeable lithium ion battery to power this camera. Use of any other type of battery is not supported.
- This camera does not require a battery for the clock. The date and time settings of the camera are cleared whenever power supplied by both the battery and USB cradle is interrupted. Be sure to reconfigure these settings after power is interrupted.

LCD Panel

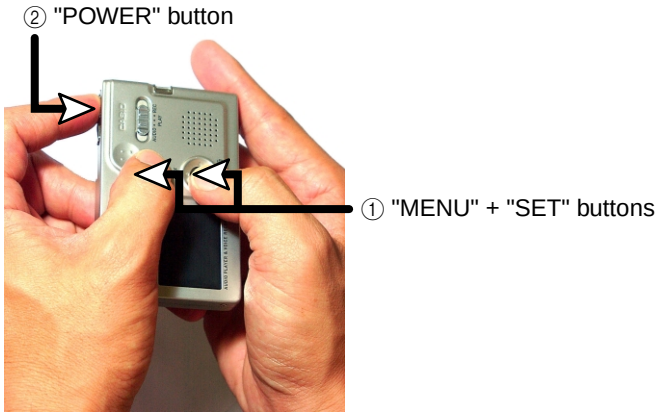
- The LCD panel is a product of the latest LCD manufacturing technology that provides a pixel yield of 99.99%. This means that less than 0.01% of the total pixels are defective (they do not turn on or always remain turned on).

TEST MODE

Note: Do not perform the menu item unless explained here. (It may damage the internal data and camera becomes unusable.)

Booting

To boot the test mode
While firmly pressing down both "MENU" and "SET" buttons, Turn the power on.
Continue pressing "MENU" and "SET" until the MAIN MENU is displayed.



While holding the camera in a horizontal position, press the set button twice towards your "RIGHT" and then press "MENU" .

EX-S1 (as of May 28, 2002)

```
        ++ KX851 ++
PR : 02.05.26.00.56
LD : 1.06
MI : 41
```

EX-M1 (as of May 28, 2002)

```
        ++ KX852 ++
PR : 02.05.26.00.56
LD : 1.06
MI : 41
```

"Right" button, "Right" button, "MENU" button

```
  1  :VERSION INFO
  2  :VIDEO OUT
  3  :USB TCC TEST
* 4  :TEST MENU
  5  :BEEP TEST
  6  :TASK-2 TEST
  7  :ROM UPDATE
  8  :ADJ TEST
  9  :REC-INFO
 10 :TEST SCRIPT
 11 :LAST MEMORY
```

SET button

MENU button

```
* 1 :KEY CHECK
  2 :VOCM CHECK
  3 :MEMORY CHECK
  4 :COLOR CHECK
  5 :UGAIN CHECK
  6 :VGAIN CHECK
  7 :MESSAGE CHECK
  8 :LED CHECK
  9 :SW&JACK CHECK
```

PROGRAM VERSION UPGRADING

■ Introduction

Update the program using an SD card.

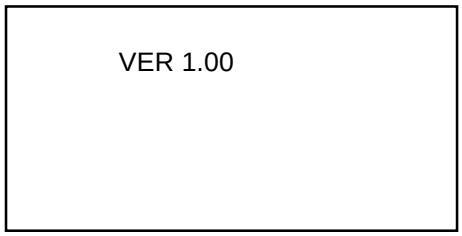
Note:

Make sure to use a fully charged battery.
MAIN PCB becomes unusable if power down or an error occurs during program transmission.

1. How to confirm the program version

■ The program version can be confirmed in the test menu (refer to the previous page).

■ Turn the power on while pressing MENU button.
The following program version also can be found.
Check the LCD display.
(Example)

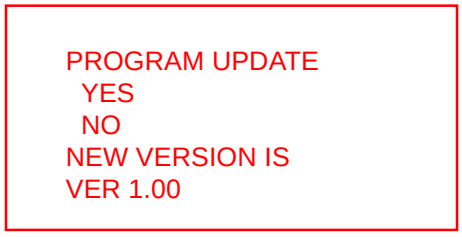


(As of May 28. 2002)

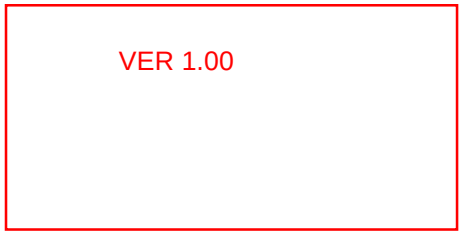
2. How to update the firmware

1. Prepare the memory card which contains the software for upgrading firmware in the root directory.

   EX-S1: ex-s1.bin
   EX-M1: ex-m1.bin
2. Insert the above memory card into the camera, and set a fully charged battery in the camera.
3. While pressing MENU, press power switch.
   Keep pressing MENU until “PROGRAM UPDATE” appears in the camera LCD.
   The following appears.
   The version for the firmware update software in the memory card appears at the bottom.



4. Align the white cursor to “Yes” by the cross keys of ▲ and ▼, and press SET.
   “NOW LOADING” appears in the LCD and the update starts.
5. ”COMPLETE” appears after the update finishes.
6. Remove the memory card after turning the power off once.Turn the power back on again while pressing MENU, and check the version.



VER1.00 appears this time.

7. If the version is correct, turn the power off.
8. Finally, check the operation by recording, playing back and deleting an image.

3. How to recover the program in case of the failure

1. Prepare the following firmware restoration program and change its name to "mercury.bin".

   EX-S1 : kx851r.hbn
   EX-M1 : kx852r.hbn
   • Insert the SD card into the computer using the PC card adaptor.
   * Prepare the PC card adaptor for the SD card.
   • The computer recognises the SD card as a "REMOVABLE DISK".

2. Copy "mercury.bin" to a root directory of an SD CARD.
3. Insert it into the camera.
4. Insert a fully charged battery into the camera.
5. Turn the power on while pressing shutter release button.
   The operation LED changes in the following order; orange blinks, green blinks and green lights.
6. When green lights, the firmware restoration is finished.
   Remove the battery.
7. Turn the power on again while pressing both MENU and SET buttons.
   The firmware is successfully restored if the corresponding program version appears next to "PR:" of the test menu.
8. Finally, start the camera normally to check the operation by recording, playing back and deleting an image.

COLOR ADJUSTMENT

■ Introduction

Make sure to perform the adjustment when replacing the lens unit or the MAIN PCB.
The necessary software, driver and setting are explained in using USB ADJ Tool "adj331e.exe (Ver.1.1).
Note that the tool, drivers etc. are available only for Windows.

1. How to use USB ADJ Tool

1-1. Prepare the necessary software, driver and DLL file.

(1) Prepare the following three files.
- Commom test driver for CASIO/PENTAX
  [testmode_pentax_casio] folder uusbd.dll
  uusbd.inf
  uusbd.sys
- ADJ data read/write tool "adj331e.exe"
- Commom DLL for USB test "uusbd.dll"

(2) Place the commom test driver for CASIO/PENTAX in an appropriate place.
(3) After downloading the common DLL for USB test, copy it to the same directory as that of the ADJ data read/write tool or under "c:windows/system.

1-2. Set the camera so that it recognizes the USB test mode.

(1) Enter the test mode and then the initial test selection screen.
  Turn the power on while pressing both "MENU" and "SET".
  Press "RIGHT", "RIGHT" and "MENU.
(2) Move the cursor to "3:USB TCC TEST" and press "SET".
(3) Move the cursor to "1:USB TCC ON" and press "SET".
(4) Press "MENU" button and leave the test mode.
(5) This enables the camera to recognise the USB test mode flag.
(6) When the USB test mode flag is ON, the test menu appears first when the camera power is turned on.
  * If the USB test mode flag should be OFF, set "2: USB TCC OFF" in the test menu.

1-3. Install the USB driver for the USB test mode in the computer.

(The following is an example using the Windows Me.)

(1) Prepare the USB driver for the USB test mode.
(2) Turn the camera power on which is set in the USB test mode and let it enter the USB test mode as shown in 2.(the test menu appears right after the power is turned on).
(3) Connect the camera in the above status to the computer by the USB cable.
(4) "A wizard for the new hardware" appears.
(5) Check "Designate the place for the driver (for users with sufficient knowledge)" and press "Next".
(6) Check "Search for the optimum driver for the device (recommended)".
(7) Check "Designate the place to search" , designate the place which contains "inf" file in the driver by pressing "Reference" button, and then press "Next" button.
(8) When "Universal USB Driver (VMEM manufacturer's name)" appears upon message "Searching for the driver file for the following devices" , press "Next" button.
(9) The file copy starts.
  (If a message "uusbd.Inf cannot be found" appears during the file copy, designate the same place as in the step 7).
(10) Press "Complete" button.
(11) Right-click "My computer", select "Property" and open "Device manager". If "Universal USB Driver (VMEM manufactur's name)" can be found in "USB device for UUSBD", the computer has successfully recognised the driver.
(12) The test driver can be used for both CASIO/PENTAX. Installing the test driver into either one enables the other one to recognise it.

NOTE: How to uninstall the USB driver for the USB test mode

- Connect the camera while in the USB test mode to the computer so that the computer recognises the camera.
- Right-click "My computer", select "Property" and open "Device manager".
- Select "USB device for UUSBD" , and then "Universal USB Driver (VMEM manufacturer's name)".
- Press "Delete" button and delete the driver.
- When using Windows98/98SE/Me, delete the following three files;
  (NOTE! Do NOT delete "usbd. inf" and "usbd.sys", whose names are much alike the following.)
  C:windows / inf / uusbd.inf
  C:windows / inf / other / KashiwanoUUSBD.inf
  C:windows / system32 / drivers / uusbd.sys
- The driver has been successfully deleted.

1-4. Use the USB ADJ Tool

(1) Prepare ADJ data read/write tool "adj331e.exe".
(2) Copy the common DLL for USB test to the same directory as that of the ADJ data read/write tool "adj331e.exe" or under "c:windows / system".
(3) Turn the camera power on which is set in the USB test mode and let it enter the USB test mode (the test menu appears right after the power is turned on).
Connect the camera to the computer by the USB cable.
(4) Boot "adj331e.exe." and use it as follows;

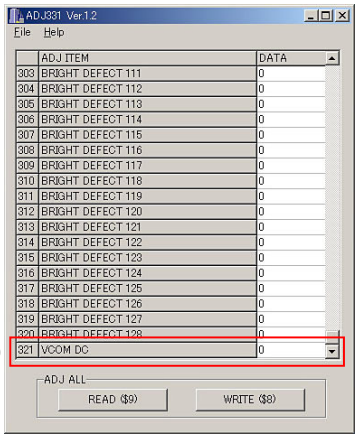
- Read ADJ data from the camera. → Press "read from the camera".
- Write ADJ data into the camera. → Press "write into the camera".
- Save ADJ data which is read. → Press "File" and "Save", and save it with an appropriate name.
- Open ADJ data which is saved. → Press "File" and "Open", and open the necessary file.

2. Lens Replacement

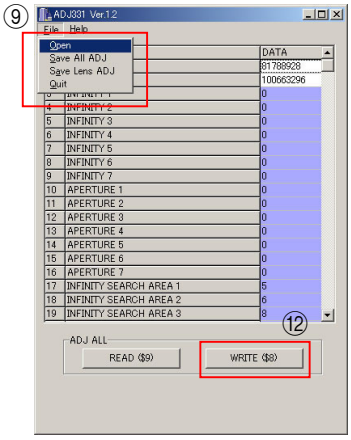
Make sure to perform the following procedure after replacing the lens.
A foppy disk with the lens data is bundled in the spare parts of the lens unit.

① Enter the TEST mode.
1. Turn the power on while pressing both "MENU" and "SET" buttons.
2. Press "RIGHT" button, "RIGHT" button and "MENU" button while the program version is displayed.
3. Select "3.USB TCC TEST".
4. Select "1. USB TCC ON".
5. Turn the power OFF.

② Set the QV to the cradle and turn the power on and connect it to the computer by the USB cable.
③ Boot "adj331e.exe" .
④ Click "ADJ ALL READ", and display the data on the "adj331e.exe".
⑤ Find the No.321, "V-COM DC".


ADJ331 Ver.1.2
File Help
ADJ ITEM
DATA
303 BRIGHT DEFECT 111 0
304 BRIGHT DEFECT 112 0
305 BRIGHT DEFECT 113 0
306 BRIGHT DEFECT 114 0
307 BRIGHT DEFECT 115 0
308 BRIGHT DEFECT 116 0
309 BRIGHT DEFECT 117 0
310 BRIGHT DEFECT 118 0
311 BRIGHT DEFECT 119 0
312 BRIGHT DEFECT 120 0
313 BRIGHT DEFECT 121 0
314 BRIGHT DEFECT 122 0
315 BRIGHT DEFECT 123 0
316 BRIGHT DEFECT 124 0
317 BRIGHT DEFECT 125 0
318 BRIGHT DEFECT 126 0
319 BRIGHT DEFECT 127 0
321 VCOM DC 0
⑤
ADJ ALL
READ ($9)
WRITE ($8)

⑥ Write down this value(data).
⑦ Replace the Lens unit.
⑧ Perform the above ① to ③
⑨ From "File/Open", open the bundled floppy disk, and transfer the data to the "adj331e.exe".
⑩ Find the No.321,"V-COM DC"
⑪ Change the data to the former value.(Refer to ⑥).
⑫ Click "WRITE" button of "ADJ ALL".
⑬ After adjustment, change "1. USB TCC ON" to "2. USB TCC OFF".



3. MAIN PCB Replacement

Make sure to backup ADJ DATA before replacing the MAIN PCB.

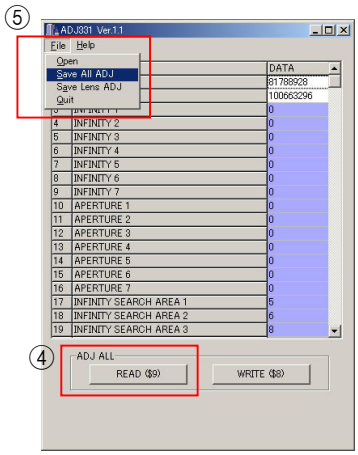
IMPORTANT NOTICE:

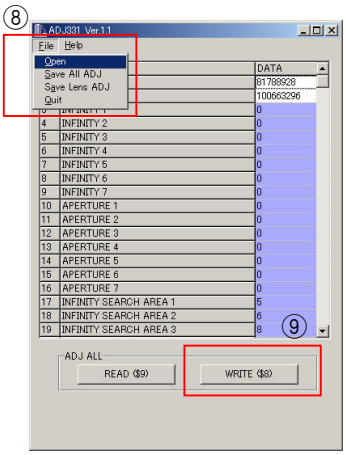
The MAIN PCB is a common part for EX-S1 and EX-M1 as a spare part.
After replacing MAIN PCB, firm up and system initialization should be required.
Refer to the service bulletin QV-068.

① Enter the TEST mode.
1. Turn the power on while pressing both "MENU" and "SET" buttons.
2. Press "RIGHT" button, "RIGHT" button and "MENU" button while the program version is displayed.
3. Select "3.USB TCC TEST".
4. Select "1. USB TCC ON".
5. Turn the power OFF.

② Set the QV to the cradle and turn the power on and connect it to the PC by the USB cable.
③ Boot "adj331e.exe" .
④ Click "ADJ ALL READ", and display the information on the computer screen.

⑤ Save the information in the computer.
⑥ Replace the MAIN PCB.
⑦ Perform the above ① to ③ after replacing the MAIN PCB without any problem.
⑧ Open the file which is saved above.
⑨ Click "WRITE" button of "ADJ ALL".
⑩ After adjustment, change "1. USB TCC ON" to "2. USB TCC OFF".





4. Operation and Current consumption

1. Operation check

① Unti-shock, Battery operations
② Switch, buttons operations
③ SD CARD insersion/eject operation, battery cover open/close operation
④ Resolution and color repeatability check
⑤ AE operation
⑥ Charging and cradle connection (USB function etc.) check
⑦ Appearance check
⑧ Buzzer check (EX-S1 only)
⑨ Recording with a microphone, speaker and earphone sound production, and remote controller operation check (EX-M1 only)

2. Current consumption test

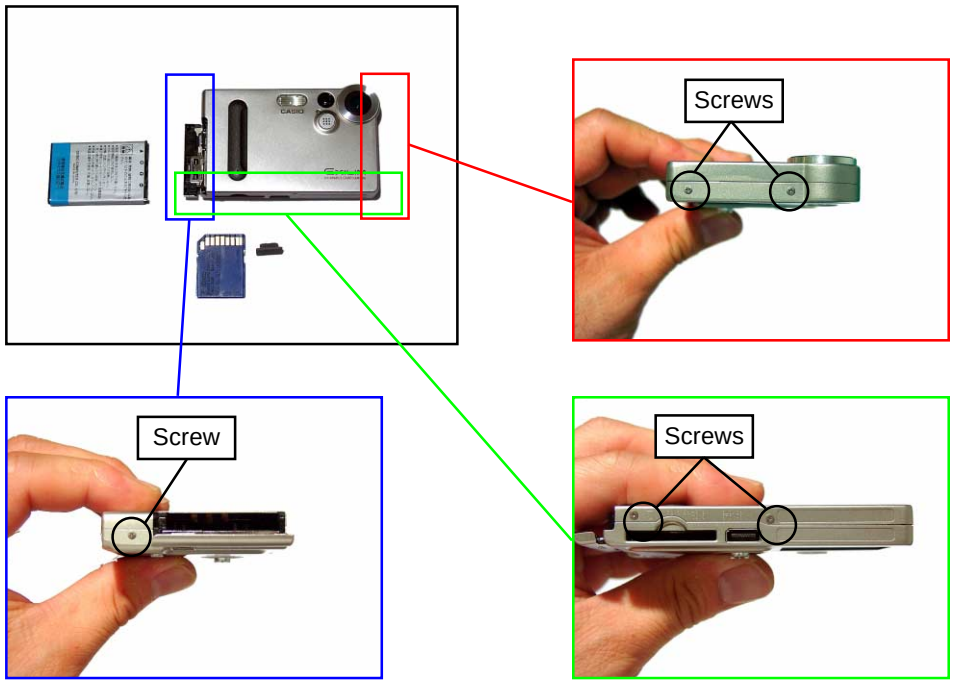
Current consumption (Vcc1 = 3.60 ± 0.05 [V])

- Make sure that current consumption is less than 450 mA in PLAY mode.
- Make sure that current consumption is less than 530 mA in REC mode.
- Make sure that current consumption is less than 2mA when power is turned OFF.

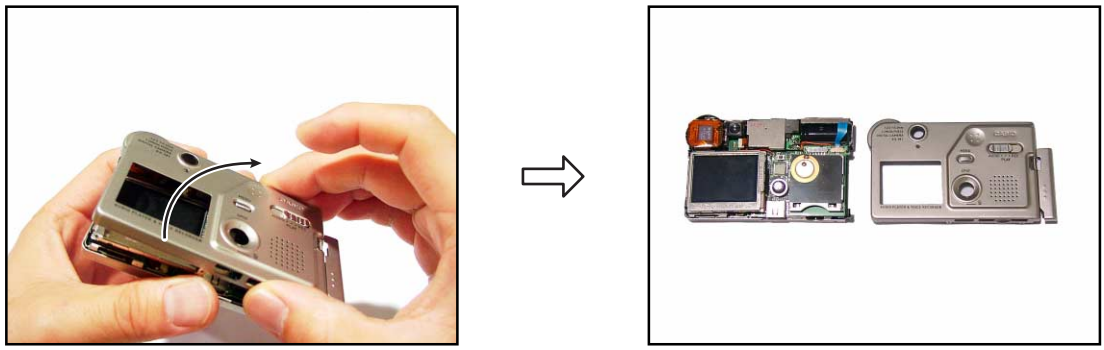
DISASSEMBLY

NOTE : Here EX-M1 is used.

1. Remove the CARD, BATTERY and the JACK COVER.
2. Remove five screws.



3. Remove the REAR CASE ASSY.

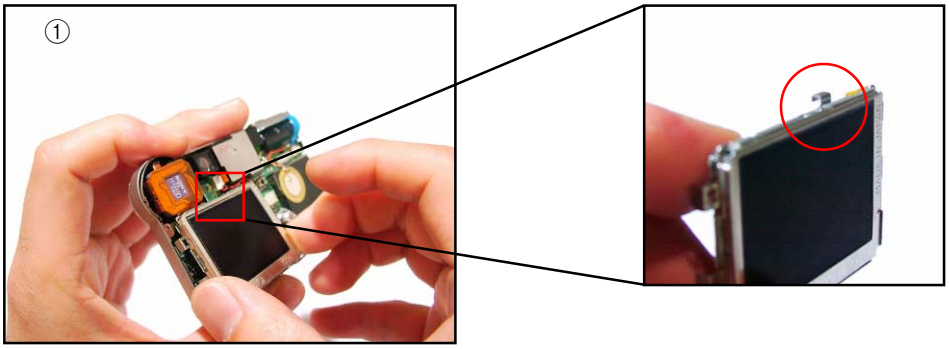


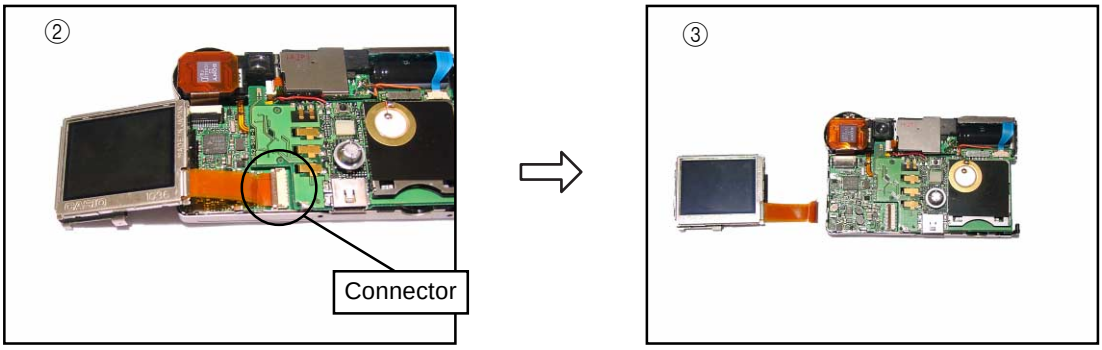
4. Removing the LCD ASSY

① Remove the hook from the MAIN PCB and slide the LCD ASSY.

② Remove the CONNECTOR.

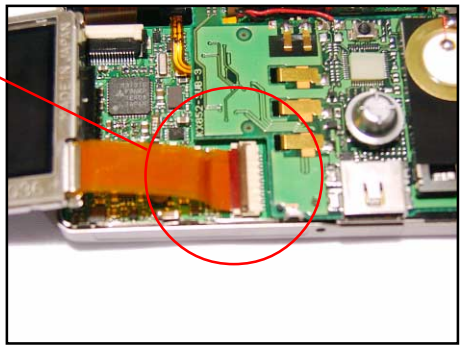
③ Remove the LCD ASSY.



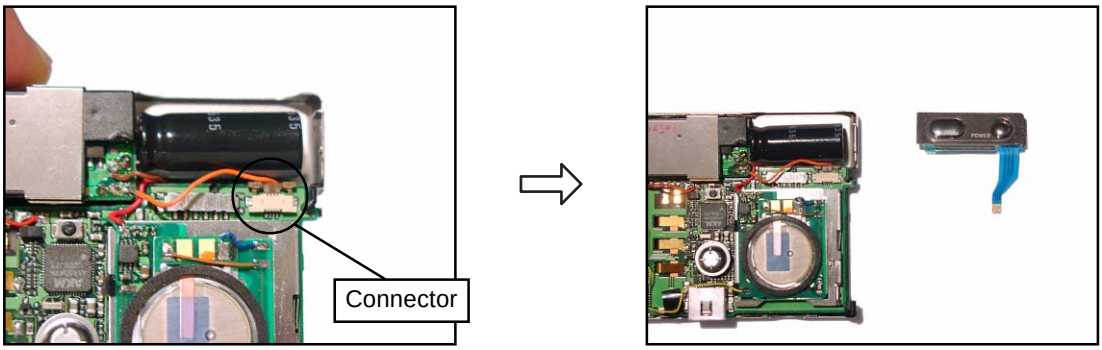


NOTE:

Fix the FPC to the CONNECTOR tightly when assembling.



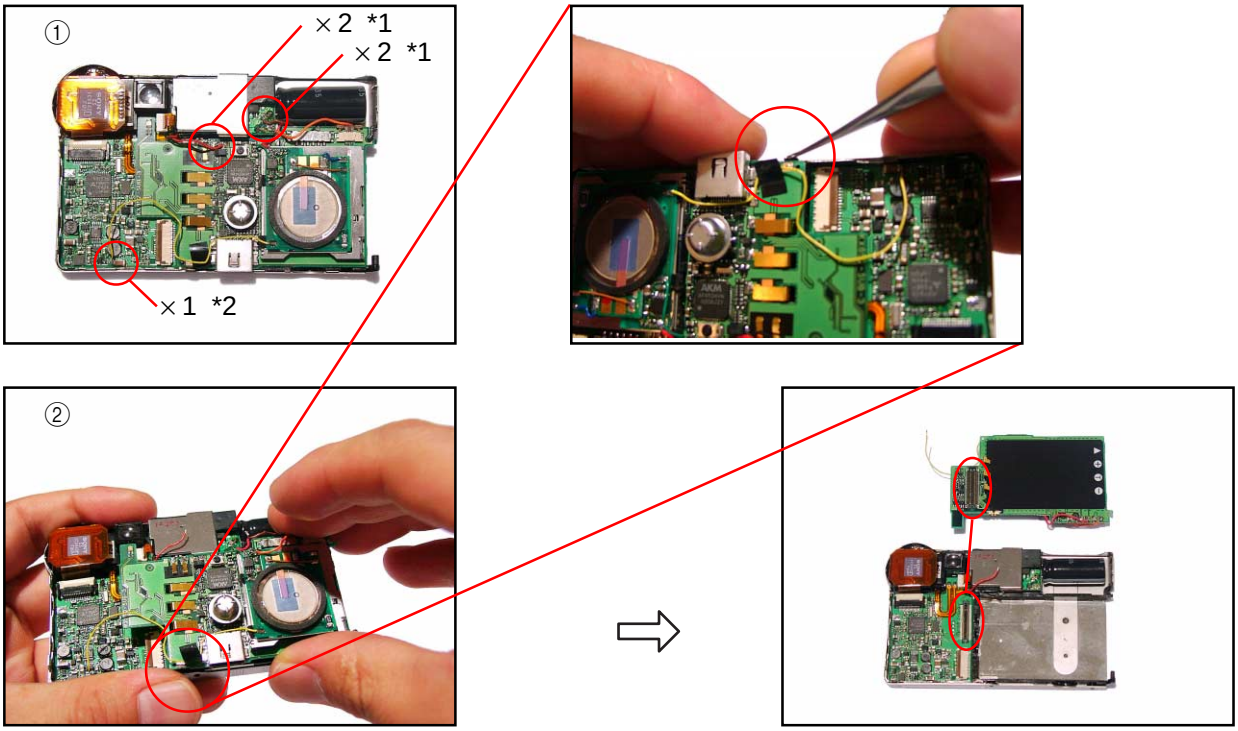
5. Remove the FPC from the CONNECTOR and then remove the SW UNIT.



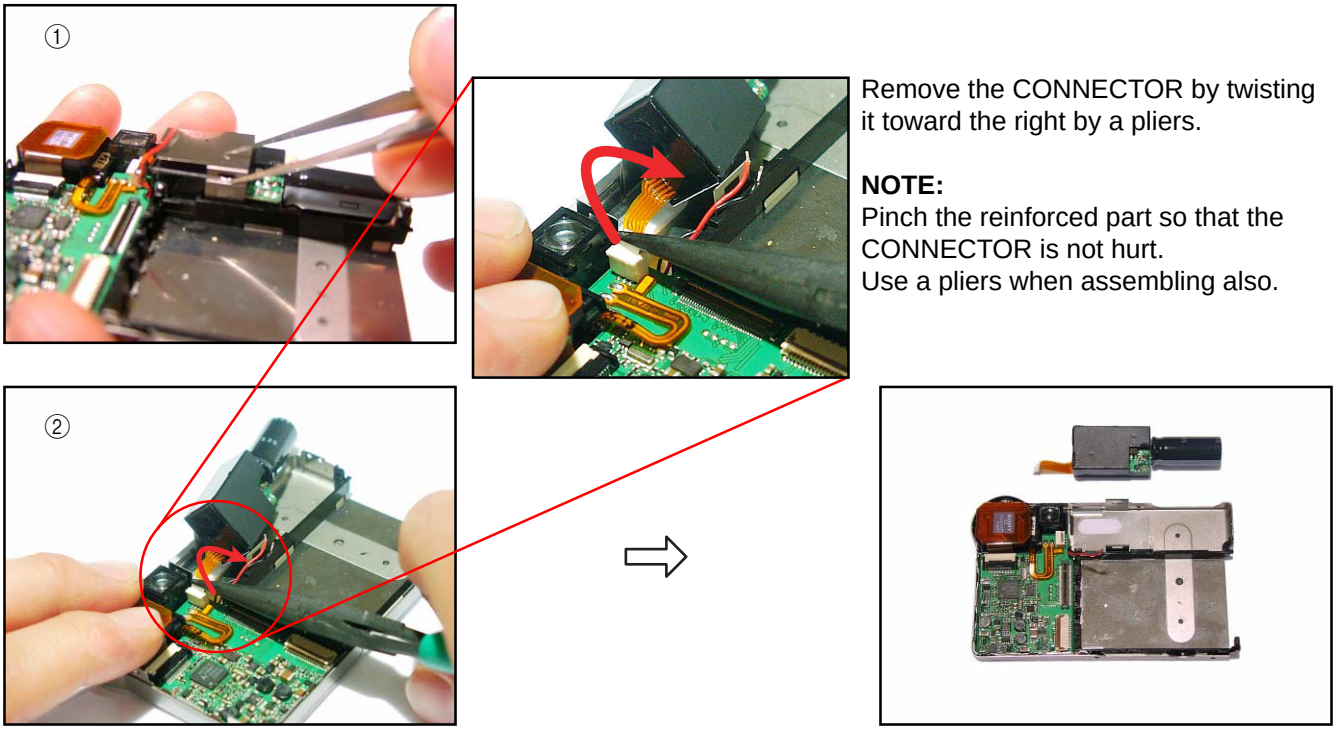
6. Removing the SUB PCB ASSY
   ① Unsolder the five lead wires.
   ② Remove the hook and then the SUB PCB ASSY.
   The SUB PCB is connected to the MAIN PCB by the CONNECTOR.

Note in assembling

*1 Position these four lead wires in the space between the MAIN PCB and the SUB PCB.
*2 Make sure that this lead wire does not touch the battery spring.



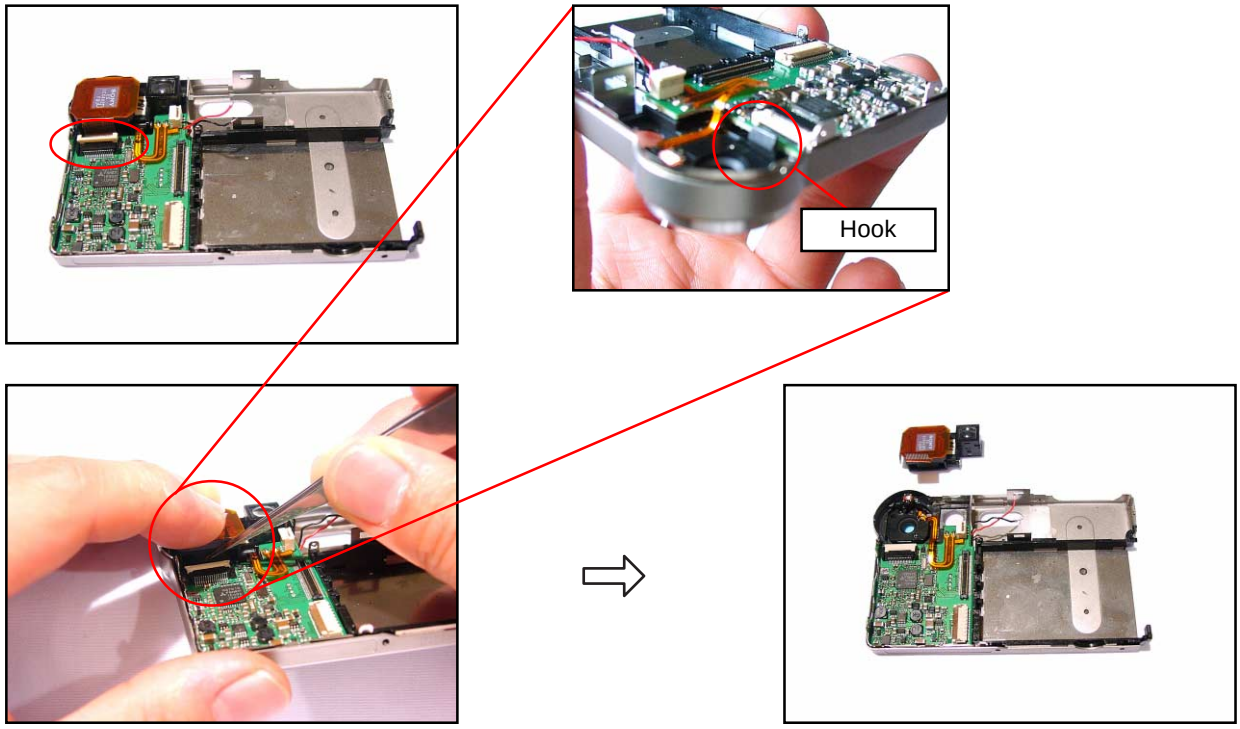
7. Removing the STROBE UNIT (**NOTE:** The STROBE UNIT does not need be discharged.)
   ① Remove the STROBE PLATE.
   ② Remove the CONNECTOR and then the STROBE UNIT.



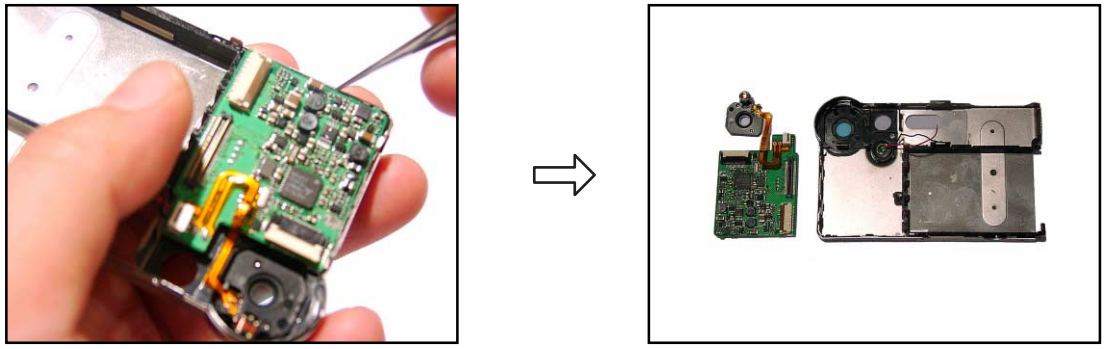
Remove the CONNECTOR by twisting it toward the right by a pliers.

NOTE:
Pinch the reinforced part so that the CONNECTOR is not hurt.
Use a pliers when assembling also.

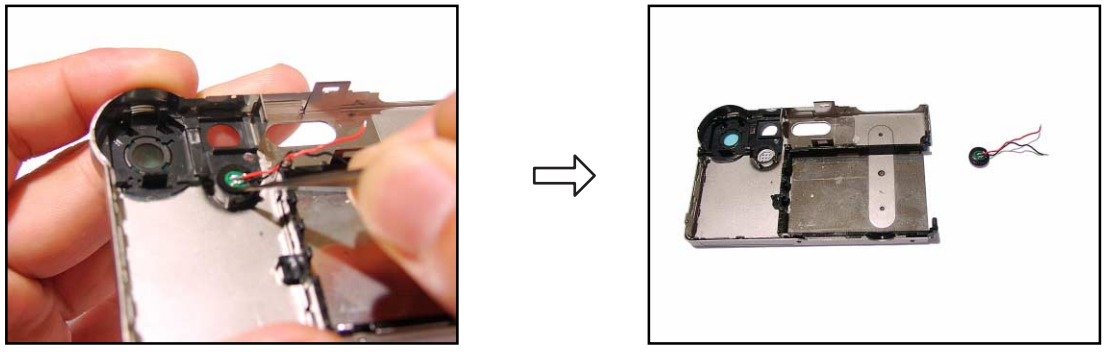
8. Removing the LENS UNIT
   ① Remove the CONNECTOR.
   ② Remove the LENS UNIT while taking care of the hook.



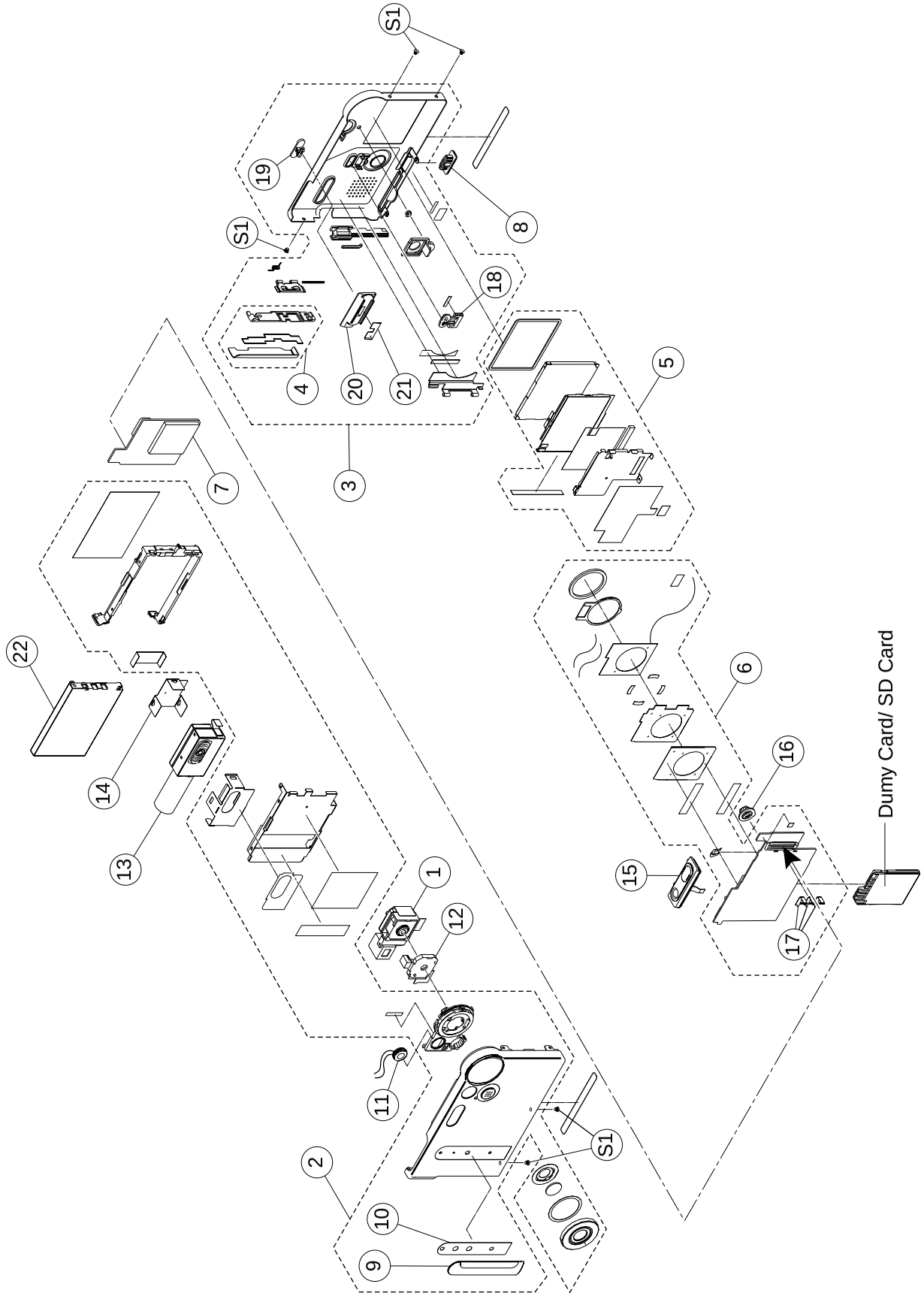
9. Remove the MAIN PCB.



10. Remove the microphone (EX-M1 only).



EXPLODED VIEW



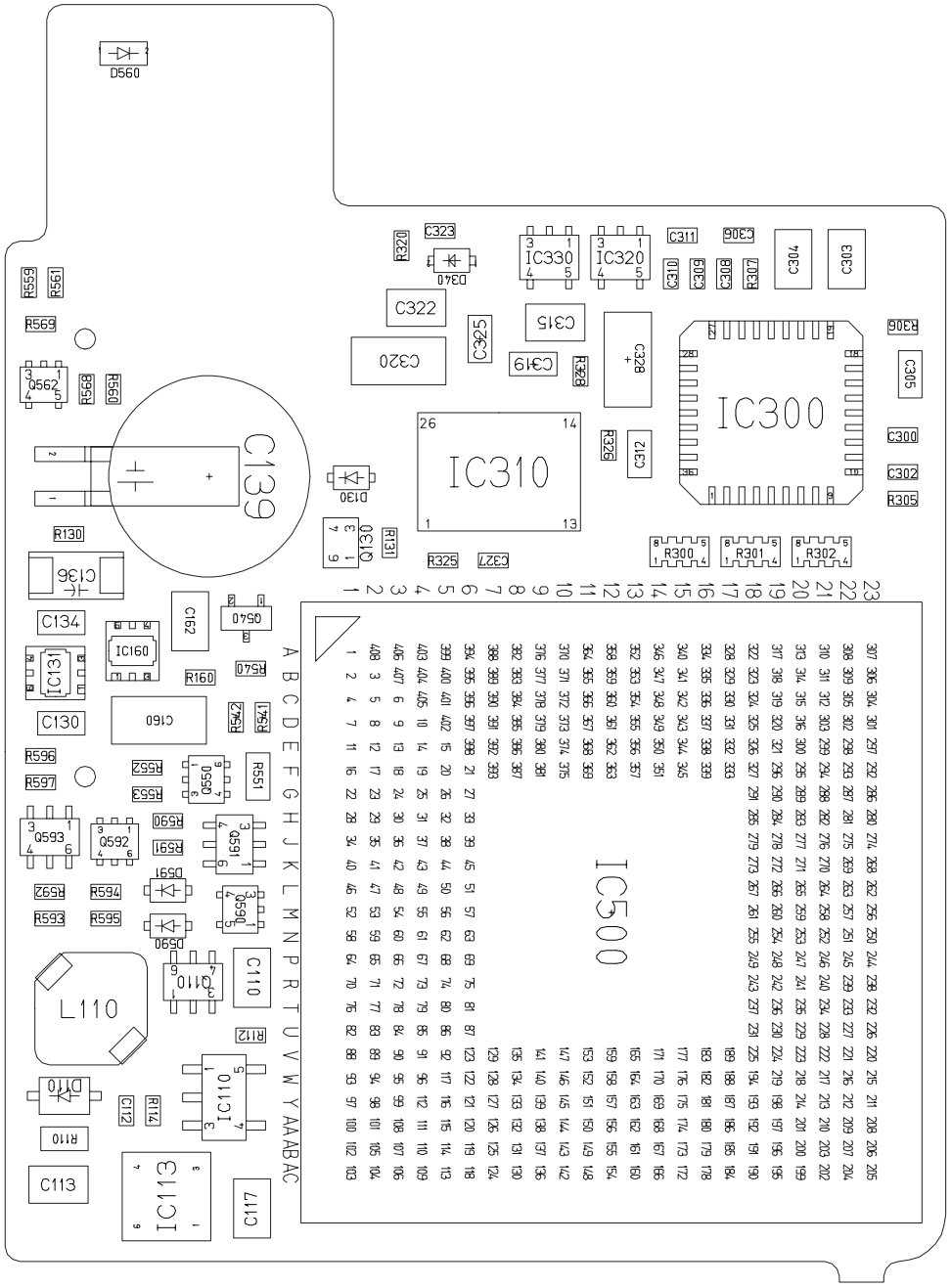
PARTS PRICE LIST
EX-S1/M1

N	Item	Parts Code	Parts Name	Specification	QTY		Price Code	R	Remarks
					EX-S1	EX-M1			
N	1	10085205	LENS UNIT	RJK503328*001V01TK	1	1	DI	B	
N	2	10085206	ASSY / FRONT CASE	RJK502949*001V01TK	1	0	CN	C	
N	2	10084967	ASSY / FRONT CASE	RJK502953*001V01TK	0	1	CQ	C	
N	3	10085208	ASSY / REAR CASE	RJK502892*001V01TK	1	0	CH	C	
N	3	10084968	ASSY / REAR CASE	RJK502952*001V01TK	0	1	CF	C	
N	4	10085223	ASSY / BATTERY COVER	RJK502891*001V01TK	1	1	AN	B	
N	5	10085225	LCD ASSY	RJK502889*001V01TK	1	1	DB	A	
N	6	10085226	PCB ASSY / S	RJK502890*001V01TK	1	0	CH	A	
N	6	10084969	PCB ASSY / S	RJK502954*001V01TK	0	1	CY	A	
N	7	10087571	PCB ASSY / MAIN	RJK503309*001V01TK	1	1	DY	A	
N	8	10083508	CAP / CONNECTOR A-K851	RJK503051-001V01	1	1	AB	X	
N	9	10081376	GRIP A-K851	RJK502704-001V01	1	1	AF	X	
N	10	10083019	ADHESIVE TAPE / GRIP-K851	RJK502825-001V01	1	1	AA	X	
N	11	10084818	CONDENSER MIKE	EML6253X3200G	0	1	AP	C	
N	12	10084753	SHUTTER UNIT	AKE-1340	1	1	BH	B	
N	13	10084761	STROBE UNIT	EFN-CAQ33	1	1	CO	B	
N	14	10081391	PLATE / STROBE A-K851	RJK502815-001V01	1	1	AA	X	
N	15	10084760	SW UNIT	UBF013M01A	1	1	BG	B	
N	16	10081380	KEY / CURSOR A-K851	RJK502714-001V01	1	0	AE	C	
N	16	10081395	KEY / CURSOR A-K852	RJK502832-001V01	0	1	AE	C	
N	17	10081358	SPRING / BATTERY	RJK502706-001V01	3	3	AB	X	
N	18	10081379	BUTTON / MENU A-K851	RJK502713-001V01	1	0	AE	C	
N	18	10081397	BUTTON / MENU A-K852	RJK502835-001V01	0	1	AE	C	
N	19	10081373	KNOB / SW A-K851	RJK502697-001V01	1	0	AF	X	
N	19	10081375	KNOB / SW A-K852	RJK502701-001V01	0	1	AF	X	
N	20	10081374	SW BASE A-K851	RJK502699-001V01	1	0	AF	X	
N	20	10081396	SW BASE A-K852	RJK502834-001V01	0	1	AF	X	
N	21	10081356	PLATE / SW A-K851	RJK502700-001V01	1	0	AA	X	
N	21	10081371	PLATE / SW A-K852	RJK502819-001V01	0	1	AA	X	
N	S1	10081372	SCREW A-K851	RJK502836-001V01	5	5	AA	X	
PCB ASSY / MAIN									
N	C139	10085385	CONDENSER / BACKUP	EECENOF204R	1	1	AL	C	
PCB S-UNIT									
N	FU800	10057715	FUSE	KMD13	1	1	AB	B	
N	SW801	10085453	SWITCH	SKRKAAE010	1	1	AD	C	
N	SW803	10085455	SWITCH	SSSS810301	1	1	AC	C	
ACCESSORY									
N	22	10085901	BATTERY / LITHIUM-ION	MK11-2443	1	1	CP	B	
N	-	10085907	CD-ROM	CK851DCA01R	1	1	AI	C	
N	-	10085906	ADAPTOR / AC	AD-C50G-WW	1	1	BT	C	EXCEPT USA
N	-	10085887	ADAPTOR / AC	AD-C50J-WW	1	1	BR	C	USA *1
	-	10006299	CORD / AC	CBL-K799-AC-JU	1	1	AO	C	For USA
	-	10006300	CORD / AC	CBL-K799-AC-EU	1	1	AR	C	For EURO
N	-	10006301	CORD / AC	CBL-K799-AC-UK	1	1	BR	C	For UK
N	-	10085898	USB CABLE	UC-K851-CL10	1	1	AO	C	
N	-	10085899	CRADLE	WAU0990-000AL	1	1	CN	C	
N	-	10085911	HEADPHONE	HP-K852-SR	0	1	AW	C	
N	-	10085912	REMOTE CONTROLLER	R66-5819	0	1	CO	C	
N	-	10085897	STRAP	ST-K851-A	1	1	AE	X	
-	-	10091600	DUMY CARD	RJK503523-001V01	1	1	AB	C	

*1 : AC PLUG is built-in.

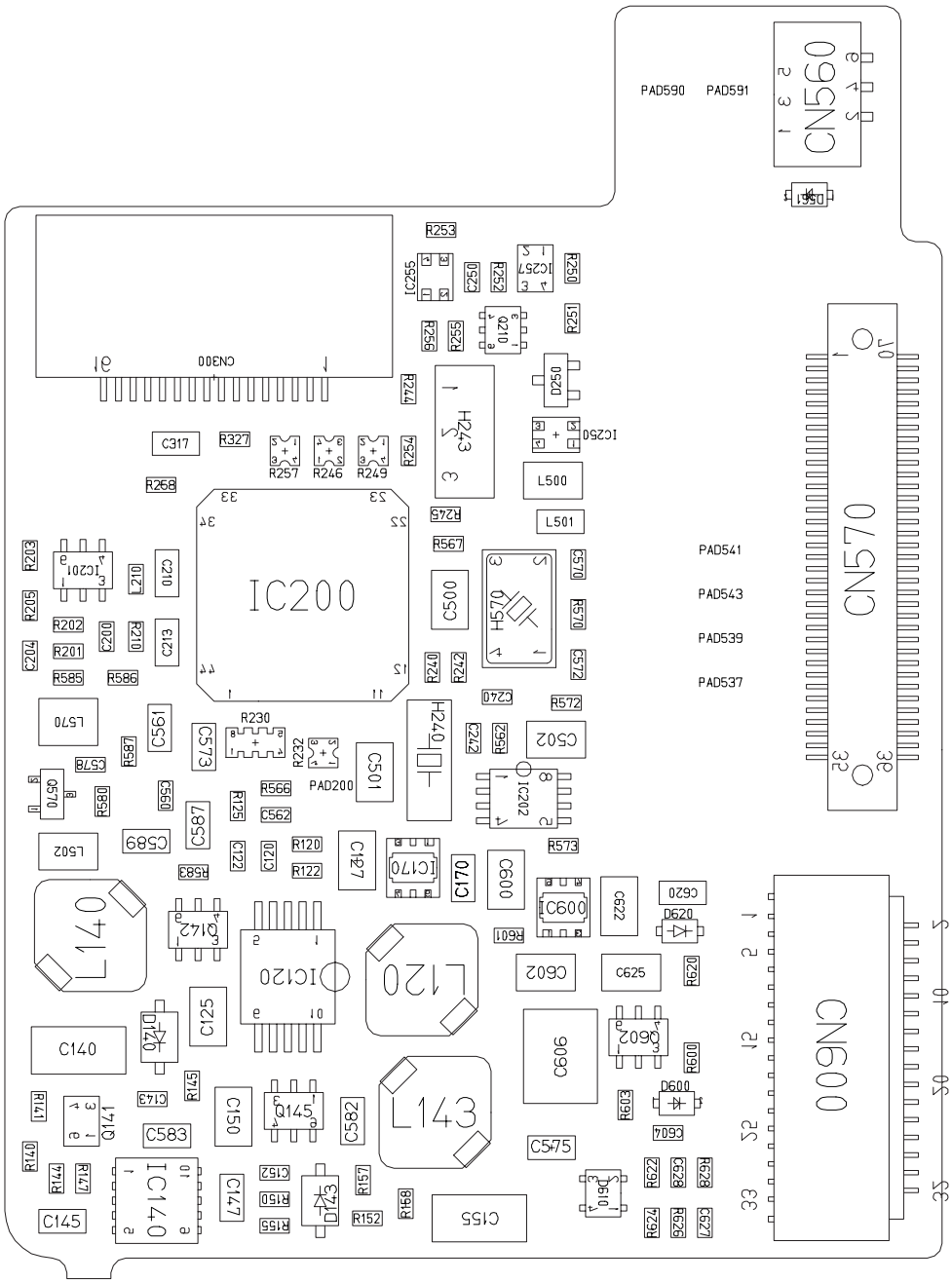
PRINTED CIRCUIT BOARDS

MAIN PCB



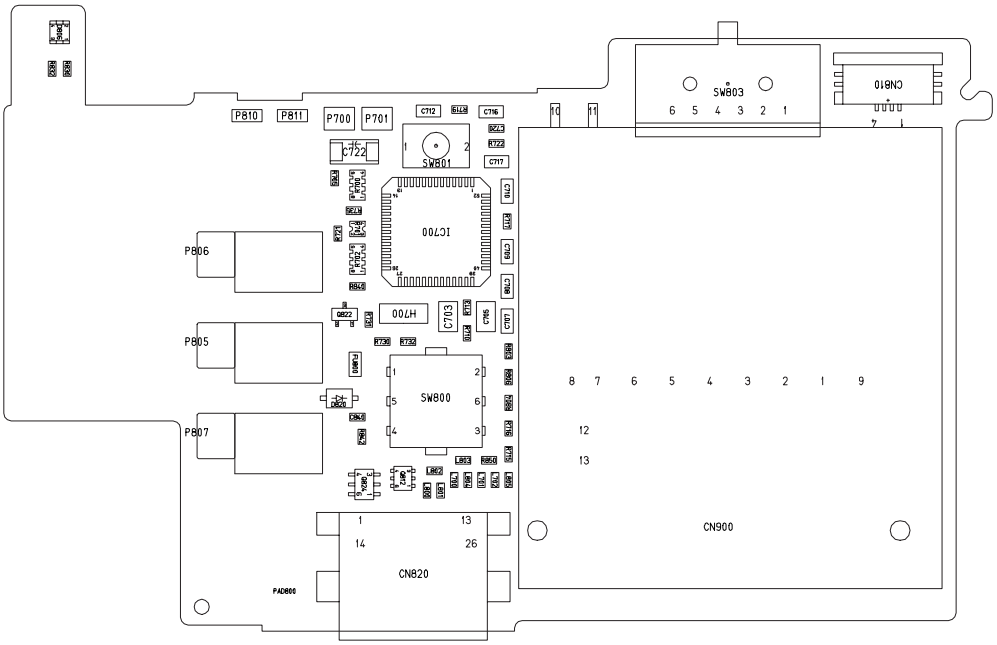
TOP VIEW

MAIN PCB

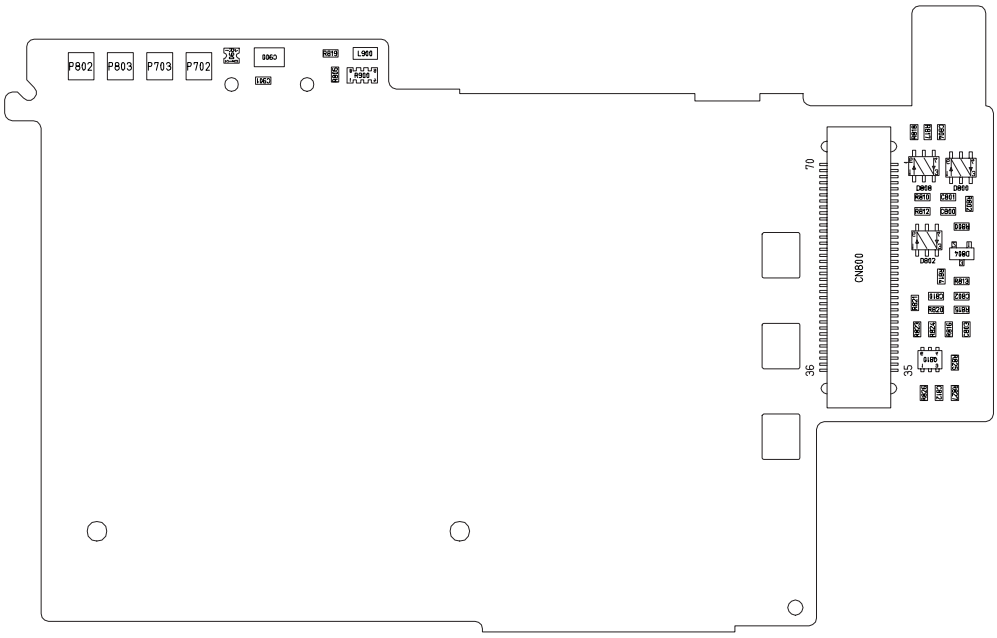


BOTTOM VIEW

SUB PCB



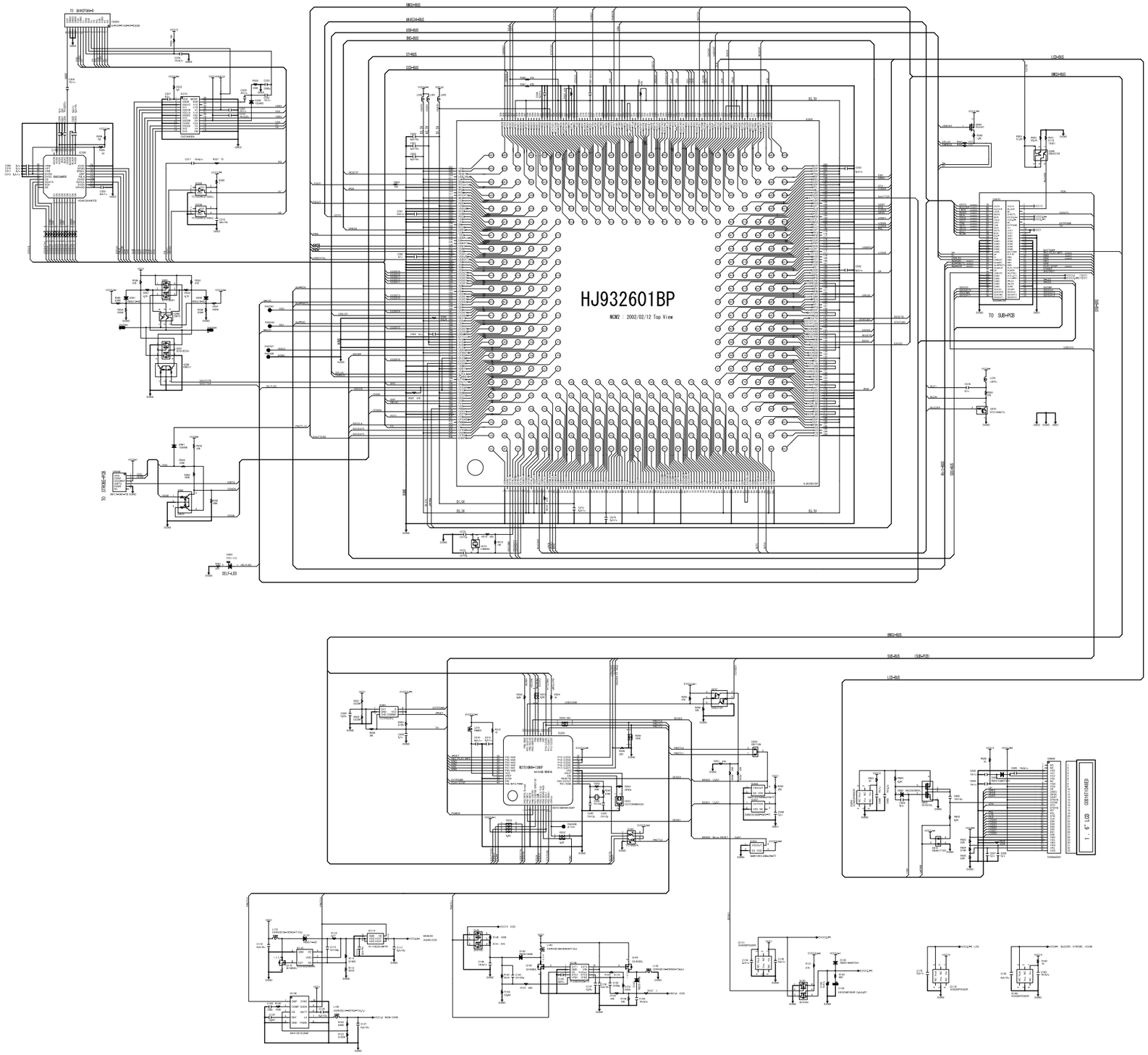
TOP VIEW



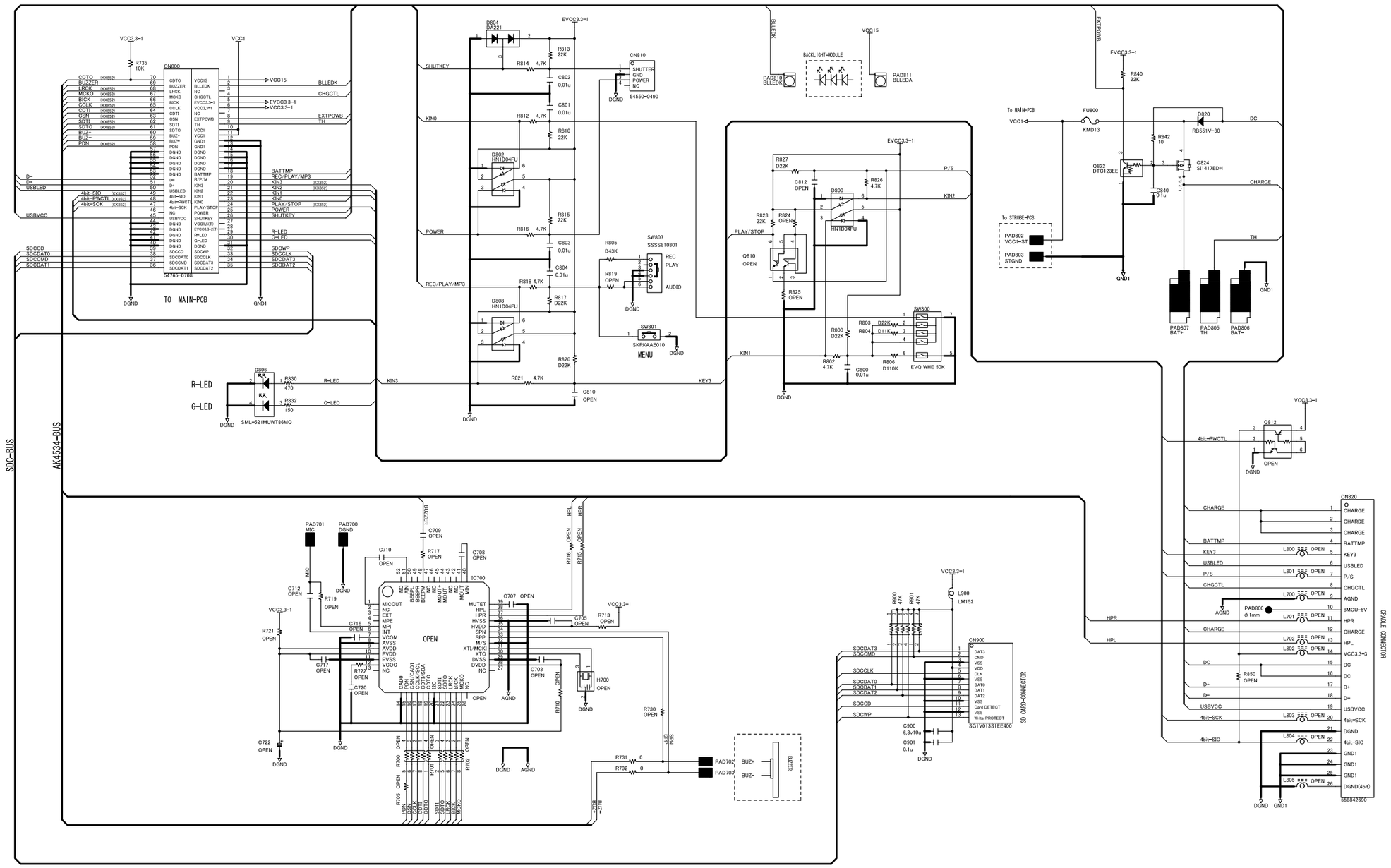
BOTTOM VIEW

SCHEMATIC DIAGRAMS

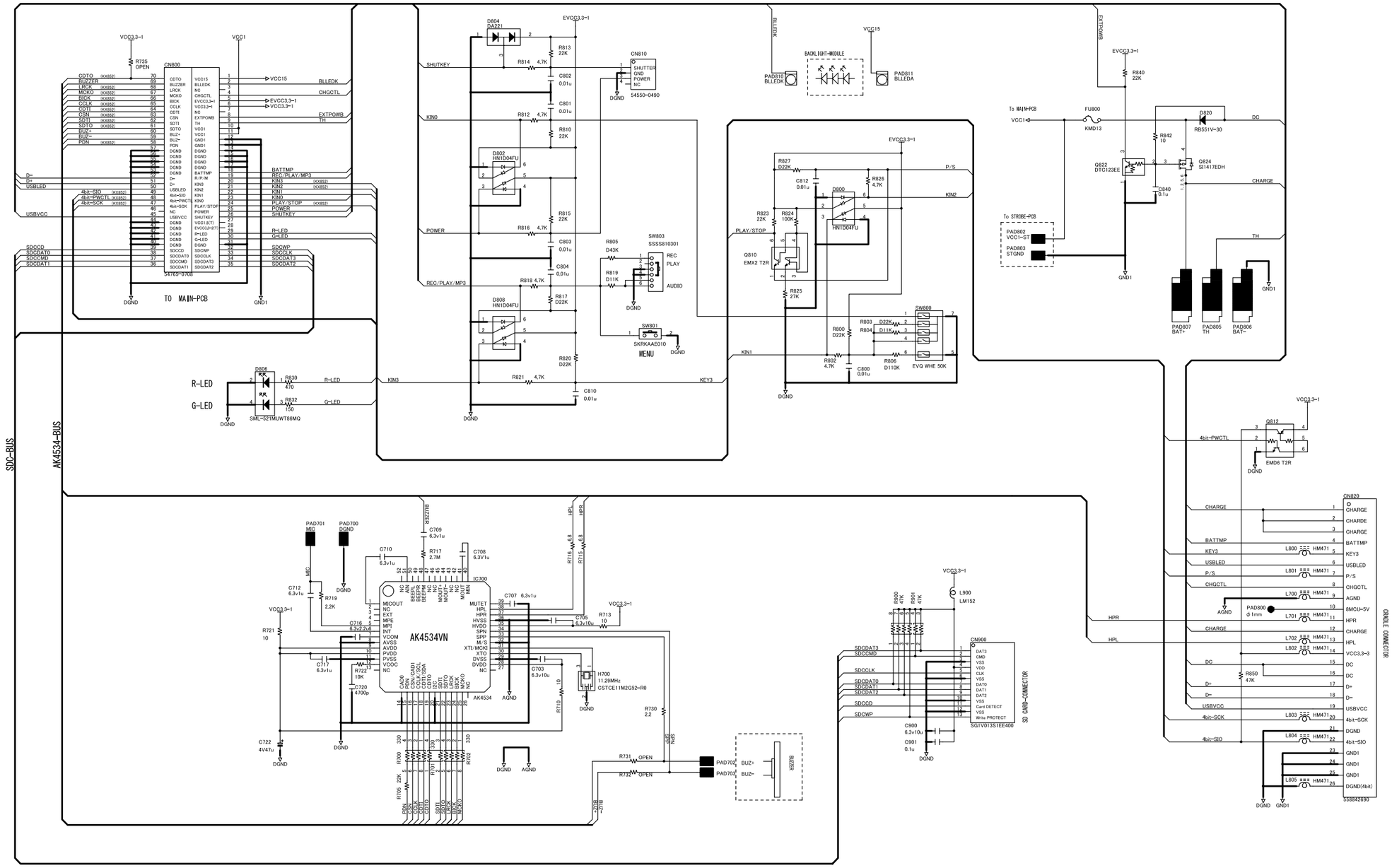
MAIN PCB



SUB PCB (EX-S1 only)



SUB PCB (EX-M1 only)



Ver.1 : (1) The button to be pushed in the test mode has been changed. (page 4 and 9)
(2) The following items were changed.
· PARTS LIST (page 16)

Ver. 2 : Correction of page 4, 5, 6, 7, 8, 9, 10 and 16.

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